

1938



**BRISTOL
PORT HEALTH AUTHORITY**

ANNUAL REPORT

OF THE
PORT MEDICAL OFFICER
OF HEALTH

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R. H. PARRY, M.D., M.R.C.P. (Lond.), D.P.H.

BRISTOL PORT HEALTH COMMITTEE.*Chairman*

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GOODENOUGH TAYLOR, J.P.

PORT HEALTH STAFF.**Port Medical Officer of Health*

R. H. PARRY, M.D., M.R.C.P. (Lond.), D.P.H.

**Deputy Port Medical Officer of Health*

I. G. DAVIES, M.B., M.R.C.P. (Lond.), D.P.H.

**Assistant Port Medical Officers*

F. W. BUNTING, M.B., Ch.B., D.P.H.

R. J. I. BELL, M.R.C.S., L.R.C.P., D.P.H.

D. T. RICHARDS, M.R.C.S., L.R.C.P., D.P.H.

J. G. HAILWOOD, M.D., M.R.C.S., L.R.C.P., D.P.H.

A. M. FRASER, L.R.C.P.E., L.R.C.S.E., D.P.H.

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T. E. HOWICK, 1.2.4.

C. W. GOULD, 1.2.3.

I. E. DAVIES, 1.2.3.

Assistant Port Officers

C. W. BASTON

W. T. BOWEN, 3.

*Rat Catchers***C. H. RYMAN***C. SCORRER***F. PEACOCK*

E. R. POOLE

1. Certificated Sanitary Inspector.
2. Certificated Meat and Food Inspector.
3. Master Mariners' Certificate.
4. Liverpool University Cert. San. Science.

** Also engaged in the city.***INSPECTION OF ALIENS.***Supervising Medical Inspector, R. H. PARRY.**Medical Inspectors*

I. G. DAVIES

R. J. I. BELL

F. W. BUNTING

D. T. RICHARDS

J. G. HAILWOOD

A. M. FRASER

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BRISTOL PORT HEALTH AUTHORITY.

ANNUAL REPORT, 1938.

MY LORD MAYOR, LADIES AND GENTLEMEN,

I have the honour to present to you a report upon the work of the port health authority during 1938.

During the year under review the port remained free of dangerous infectious disease. No case of such disease was found on any vessel entering the Port of Bristol.

All vessels from foreign ports and particularly from "infected" ports, were visited and investigated on arrival regarding their state of health. In addition they were kept under observation during their stay in port.

All foreign going vessels were examined respecting their sanitary condition and special attention was paid throughout the year to the question of hygiene of crews' quarters.

There has been a steady volume of work in connection with imported food. This is skilled work needing judgment and care.

During the year 1,166 ships arrived at Bristol ports from "foreign" and 7,404 from coastwise, making a total from "foreign" and coastwise of 8,570. Of these ships, 42 were from ports known to have been infected by plague. Your medical officers visited 221 ships altogether and in nearly all these examined the crews. The port sanitary inspectors boarded 2,372 ships.

The number of cases of sickness landed or requiring medical attention at the port was 59 (57 in respect of "foreign" vessels and two from "coastwise" ships), in addition 37 cases of infectious and other sickness were reported to have occurred on vessels during the voyage, but had been disposed of prior to arrival.

There was no case or suspected case of yellow fever, smallpox or typhus on board these vessels. Eleven persons were removed from ships to the isolation hospital for observation or treatment, and three to Southmead Hospital for treatment of other than infectious diseases.

The medical inspectors of aliens inspected 124 aliens and subjected fifteen of these to detailed examination. No certificates of physical incapacitation were issued during the year.

The detection of rodent plague is one of the most important duties of the port health authority. All ships from infected or suspicious ports were examined thoroughly for rat indications and wherever possible samples of rats were obtained for pathological examination for plague. In all 263 rats from ships were examined during the year. For the purpose of sampling the rat population in the vicinity of the quays, 708 rats were examined pathologically giving a total of 971 examined during the year.

During the year additional duties were placed upon the port health authority by the Public Health (Aircraft) Regulations which came into force on 1st July, 1938. For the purpose of these regulations the airport is included in the arrangements already made for the sea ports in so far as they are applicable to aircraft.

The efficient carrying out of the work of the port needs close co-operation between medical officers, food inspectors, hospitals and laboratories. This is achieved by the close coordination of the port health department, Ham Green and Southmead hospitals, the school medical service and the preventive medicine laboratories of the University of Bristol. For the purposes of the port health authorities these departments work as one organisation.

In addition the port health department is closely linked with H.M. Customs and Immigration officers, the officers of the Port of Bristol Authority, the haven master and pilot and the surveyors' department of the Board of Trade.

To all these officers I give my best thanks for their ready and courteous assistance during the year. Finally, I desire to bring to your notice the excellent service given to the Port Health Authority by all the officers of the department under the supervision of my deputy, Dr. I. G. Davies.

I am, my Lord Mayor, Ladies and Gentlemen,

Your obedient servant,

R. H. PARRY,

Port Medical Officer of Health.

REPORT ON THE WORK OF THE PORT HEALTH AUTHORITY.

BY

I. G. DAVIES, M.B., M.R.C.P. (Lond.), D.P.H.,
Deputy Medical Officer of Health.

As in previous years this Report is prepared on the lines indicated in a memorandum issued by the Ministry of Health to Port Health Authorities (Memorandum 204/S.A.).

Certain permanent arrangements which have been fully described in previous reports have not been repeated in this report.

The port of Bristol comprises the Avonmouth docks, the City docks, and the Portishead docks, which have a total water area of 188 acres, and a dock quayage of 37,220 feet. The Corporation of Bristol are the owners of the entire dock system, the administration of which is vested in a committee, the Port of Bristol Authority.

During the year the existing arrangements for the port regarding medical inspection, sanitary inspection and disinfection were extended so as to include the Bristol Airport, in accordance with the Public Health (Aircraft) Regulations 1938 which came into force on 1st July, 1938.

While at present the "foreign" traffic at the airport is not sufficient to make any additional call upon the port health department, it is evident that future development of air routes and traffic will considerably intensify the problem of keeping this country free of dangerous infectious disease, since the time elapsing between departure from a foreign country and arrival here may fall within the incubation period of a dangerous infectious disease.

Special attention has been paid throughout the year to the hygiene of crews' spaces and to certain matters concerning imported food, in particular the copper content of tomatoes. These matters are referred to later in the report.

For some of the figures used in the compilation of the tables in this report I am indebted to the officers of the Port of Bristol Authority and H.M. Customs and Immigration Officer. To these and to the Haven Master and Pilots and to the surveyor's department of the Board of Trade the grateful thanks of the department are due for their courtesy and willing cooperation throughout the year.

I.—Amount of Shipping entering the Port during the year 1938.

(AVONMOUTH, PORTISHEAD AND CITY DOCKS)

Table A.

	Number *	Tonnage *	Number inspected		Number reported to be defec- tive	Number of vessels on which defects were remedied	Number of vessels reported as having or having had during the voyage infectious disease on board
			By the medical officer of health	By the sanitary in- specter			
Foreign { Steamers †Motor Sailing ... Fishing ...	1,166	3,036,614	201	1,023	217	217	24
	—	—	20	143	8	8	—
	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Total Foreign ...	1,166	3,036,614	221	1,166	225	225	24
Coast- wise { Steamers †Motor Sailing Fishing }	7,404	970,669	—	668	102	102	1
	—	—	—	538	—	—	—
	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
Total Coastwise ...	7,404	970,669	—	1,206	102	102	1
Total foreign and coastwise ...	8,570	4,007,283	221	2,372	327	327	25**

† Includes mechanically propelled vessels other than steamers.

* Figures supplied by Port Authority. The foreign tonnage includes vessels entering from a coastwise port to load for a foreign port.

** Excluding vessels having venereal disease on board.

II.—Character of Trade of Port.

Table B.

(a) Passenger Traffic during 1938.

No. of passengers		1st Class	2nd Class	3rd Class	Trans- migrants	Total
Inwards	Aliens	166	—	—	—	166
	British	2,680	—	—	—	2,680
Outwards	Aliens	73	—	—	—	73
	British	2,069	—	—	—	2,069

The foreign ports from which passengers principally arrived were :—

Kingston (Jamaica), Trinidad, U.S.A., Canadian, Indian and Scandinavian ports.

(b) *Cargo Traffic.*

PRINCIPAL IMPORTS

Commodities							
Grain	...	...	...	...	Tons	—	946,901
Oilseeds	...	...	...	...	"	—	76,775
Feeding stuffs for animals	...	...	...	...	"	—	202,963
Cereal products for human consumption	...	...	...	...	"	—	24,498
Fruit :							
Bananas	...	...	...	Bunches	...	6,101,983	Tons 80,519
Oranges and lemons	...	...	...	Cases	...	207,080	" 8,251
Other green fruit	...	...	...	Tons	...	—	7,276
Canned	...	...	...	"	...	—	8,206
Dried	...	...	...	"	...	—	5,719
Metals and ores :							
Brass	...	...	...	"	...	—	157
Copper	...	...	...	"	...	—	26,452
Iron	...	...	...	"	...	—	16,079
Lead	...	...	...	"	...	—	3,699
Spelter	...	...	...	"	...	—	1,680
Zinc concentrates	...	...	...	"	...	—	111,194
Paper	...	...	...	"	...	—	45,158
Petroleum	...	...	...	"	...	—	899,980
Provisions :							
Bacon	...	...	...	"	...	—	1,041
Butter	...	...	...	"	...	—	12,633
Cheese	...	...	...	"	...	—	10,158
Lard	...	...	...	"	...	—	2,973
Frozen meat	...	...	...	"	...	—	14,891
Sugar :							
Refined	...	...	...	"	...	—	4,873
Unrefined	...	...	...	"	...	—	6,113
Glucose	...	...	...	"	...	—	1,355
Molasses	...	...	...	"	...	—	27,371
Tobacco	...	...	...	"	...	—	44,628
Wine	...	...	...	Pipes	...	7,210	Tons 4,326
"	...	...	...	Dozens	...	4,006	" 100
Spirits	...	...	...	Pipes	...	141	" 85
"	...	...	...	Dozens	...	42,961	" 859
Wood and timber	...	...	...	Tons	...	—	112,842
Wood pulp	...	...	...	"	...	—	127,736
All other goods	...	...	...	"	...	—	168,910
Total Foreign Imports						...	3,006,401

The Port of Bristol receives ten per cent. of the United Kingdom imports of grain and of petroleum and more than twenty-five per cent. of the tobacco and banana imports.

PRINCIPAL EXPORTS

Commodities						Tons
Chemicals :						
Saltcake	...	...	...	...	...	4,600
Other kinds	...	...	...	...	...	4,197
Clay	...	...	...	...	...	2,735
Coke	...	...	...	...	...	1,609
Earths	...	...	...	...	...	1,198
Iron	...	...	...	...	...	915
Paper	...	...	...	...	...	128
Strontia	...	...	...	...	...	1,595
All other goods	...	...	...	...	...	20,687
Total Foreign Exports						37,664

(c) *Foreign ports from which vessels arrive.*

The port of Bristol trades with all parts of the world and the list printed in 1934 is typical of the foreign ports from which vessels arrive in any year.

III.—Water Supply.

(1) *Source of supply for (a) the port, (b) shipping.*

The water used in the port and by ships in the docks is supplied by the Bristol Water Works Company. Hydrants are provided on the quaysides.

Samples of ships' water are taken from time to time. Two samples were taken during 1938. Twenty-three water tanks were required by the port inspectors to be cleansed.

(2) *Hydrants and hosepipes.*

As a precaution against contamination, water is allowed to run free for a few minutes before it is permitted to enter ships' storage tanks. The hosepipes are also periodically examined and cleansed by the water works staff.

(3) *No. of water boats and their sanitary condition.*

There are no water boats in use at Avonmouth or Portishead.

One water boat is in use at Bristol docks. This vessel is inspected periodically by the port sanitary inspector, and is cleansed and cement washed when necessary.

IV.—Port Sanitary Regulations, 1933.

(1) *Arrangements for dealing with declarations of health.*

(2) *Boarding of vessels on arrival.*

(3) *Notification to the authority of inward vessels requiring special attention.*

The above headings were dealt with in detail in the annual report for 1933. These arrangements, together with the arrangements made under article 6 of the Port Sanitary Regulations requiring notification by wireless message of any unusual circumstances on board by the master before arrival at the port, have all worked satisfactorily throughout the year under review. The latter arrangements, concerning the sending of wireless messages, were given in the report for 1934.

(4) *Mooring Stations.*

These remain as detailed in my report for 1933.

- (5) *Particulars of any standing exemptions from the provisions of article 14.*

At this port every ship from foreign is met at the lock gates by a port sanitary inspector. The medical officer on duty has already been notified of the expected arrival of the ship and of the necessity for medical inspection. In every case therefore he is awaiting the arrival of the ship and in this way no delay is caused either to the ship or to its personnel.

No standing exemptions under article 14 (1) have been issued.

- (6) *Experience of working of article 16.*

- (7) *What, if any, arrangements have been made for :—*

- (a) *Premises and waiting rooms for medical examinations.*
- (b) *Cleansing and disinfection of ships, persons and clothing and other articles.*
- (c) *Premises for the temporary accommodation of persons for whom such accommodation is required for the purposes of the regulations.*
- (d) *Hospital accommodation available for plague, cholera, yellow fever, smallpox, and other infectious diseases.*
- (e) *Ambulance transport.*
- (f) *Supervision of contacts.*

These matters were fully dealt with in the report for 1933.

- (8) and (9) *Arrangements for (a) bacteriological or pathological examination of rats for plague and (b) for other similar examinations.*

During the year increased attention was paid to the sampling of the rat population of the quaysides for rodent plagues.

All bacteriological and pathological examinations in this connection together with the laboratory investigation of all imported food stuffs, are carried out at the preventive medicine laboratories of the University of Bristol.

During the year under review, 701 rats were caught on ships and 4,748 rats and 340 mice were recovered from sheds and quays at the docks.

Of these, 981 were examined for plague, 263 from ships at the ports and 708 from sheds and quays at the docks.

(10) *Arrangements for the diagnosis and treatment of venereal disease amongst sailors under international arrangements.*

Inquiry is always made of the responsible officers on all ships concerning the possibility of venereal disease amongst the crew and full directions are given to the crew as to the means of obtaining treatment.

The following particulars relate to seamen treated at the municipal clinic during the year :—

1937		1938	DIAGNOSIS.			
			Syph.	Soft Sore	Gon.	Non-Ven.
209 169	CASES					
	Total	184	71	4	65	44
	New cases	161	55	4	59	43
756 424	ATTENDANCES					
	Total	625	199	16	299	111
	New cases	525	114	16	285	110
5 4	INPATIENTS					
	Total	8	4	1	3	—
	New cases	7	3	1	3	—
148 112	INPATIENT DAYS—					
	Total	184	72	54	58	—
	New cases	149	37	54	58	—

Table C.

Cases of infectious sickness landed* from vessels.

Disease	No. of cases during 1938		No. of vessels concerned	Average no. of cases for previous 5 years
	Passengers	Crew		
<i>Infectious diseases, including :</i>				
Typhoid	—	1	1	0·2
Measles	—	5	3	0·2
Dysentery... ..	1	—	1	0·2
Pulmonary tuberculosis...	—	1	1	4·6
Malaria	—	2	2	4·8
Pneumonia	—	4	4	1·4
Venereal disease...	—	8	8	24·4

Other diseases not included in Table C above landed from vessels.*

Disease	No. of cases during 1938		No. of vessels concerned	Average no. of cases for previous 5 years
	Passengers	Crew		
Rheumatism	—	1	1	2·8
Diseases of nervous system ...	—	1	1	7·6
Diseases of respiratory system ...	—	3	3	6·4
Diseases of digestive system ...	—	9	9	18·2
Diseases of skin and cellular system	—	4	2	10·4
Diseases of bones and organs of locomotion	—	3	3	3·8
Traumatism	—	3	3	5·4
Ill-defined	—	13	13	22·2

* Includes only cases requiring medical attention, but all were not removed from ships to hospital.

Table D.

Cases of infectious sickness on vessels during voyage but disposed of prior to arrival.

Disease	No. of cases during 1938		No. of vessels concerned	Average no. of cases during previous 5 years
	Passengers	Crew		
<i>Infectious diseases, including :</i>				
Typhoid	—	1	1	0·6
Measles	1	5	2	0·0
Influenza	—	1	1	4·0
Malaria	1	3	4	4·0
Dysentery	—	2	2	3·8
Other infectious diseases (mumps)	1	1	2	2 0
Venereal disease	—	1	1	2·2

Other diseases not included in Table D above on vessels during voyage but disposed of prior to arrival.

Disease	No. of cases during 1938		No. of vessels concerned	Average no. of cases during previous 5 years
	Passengers	Crew		
Diseases of circulatory system ...	1	2	3	2·0
„ „ respiratory system ...	—	1	1	2·6
„ „ digestive system ...	—	6	5	4·6
„ „ bones and organs of locomotion	—	1	1	0·0
Traumatism... ..	—	1	1	2·2
Ill-defined	—	8	8	6·0

V.—Measures against Rodents.

- (1) *Steps taken for detection of rodent plague (a) in ships in the port, (b) on quays, wharves, warehouses, etc.*
- (2) *Measures taken to prevent the passage of rats between ships and the shore.*
- (3) *Methods of deratisation of (a) ships, (b) premises in the vicinity of the docks and quays.*

Such steps were given in detail in the reports for 1933 and 1934.

- (4) *Measures taken for the detection of rat prevalence in ships and on shore.*
- (5) *Rat-proofing.*

These matters continue as detailed in previous reports, particularly those for 1933 and 1934.

Nineteen deratisation and 91 deratisation exemption certificates were issued during the year 1938. Deratisation was carried out as follows :—

10 vessels by sulphur.

9 vessels by cyanide.

If there is any evidence of considerable infestation deratisation by trapping is not undertaken as it is considered that it cannot be efficiently carried out with certainty.

Five hundred and twenty four rats were recovered from these vessels.

The following table deals with the certificates of deratisation and exemption issued during the last five years.

Year	1934	1935	1936	1937	1938
Ships fumigated	29	19	19	16	19
Rats found on these ships :	739	623	306	293	524
Average number of rats per ship	25·5	32·8	16·1	18·3	27·5
But it is relevant to note the greatest number of rats on a single ship was	234	167	84	99	95
Number of exemption certificates issued	117	126	127	115	91
Rats found on these ships by trapping previous to issuing exemption certificates ...	19	7	10	3	—

Table G.
Measures of rat destruction on plague "infected" or "suspected" vessels or vessels from plague infected ports arriving in the Port during the year.

Total number of such vessels arriving.	Number of such vessels fumigated by SO ₂	Number of rats killed.	Number of such vessels fumigated by HCN.	Number of rats killed.	Number of such vessels on which trapping, poisoning, etc., were employed.	Number of rats killed.	Number of such vessels on which measures of rat destruction were not carried out.
1.	2.	3.	4.	5.	6.	7.	8.
42	1	95	—	—	35	—	6*

* These ships were all examined for rat indications, but no measures were taken, either because there was no evidence of rats, or because of very short stay in port.

Table H.
Deratisation certificates and deratisation exemption certificates issued during the year.

Net Tonnage.	No. of ships.	No. of deratisation certificates issued.					No. of deratisation exemption certificates issued.	Total certificates issued.
		After fumigation with			After trapping, poisoning, etc.	Total.		
		H.C.N. and Sulphur.						
		H.C.N.	Sulphur	5.				
1.	2.	3.	4.	5.	6.	7.	8.	9.
Ships up to 300 tons ...	10	—	—	—	—	—	10	10
„ from 301 tons to 1,000 tons	19	—	—	—	—	—	19	19
„ from 1,001 „ 3,000 „	32	1	8	—	—	9	23	32
„ from 3,001 „ 10,000 „	49	8	2	—	—	10	39	49
„ over 10,000 „ ...	—	—	—	—	—	—	—	—
TOTALS ...	110	9	10	—	—	19	91	110

VI.—Hygiene of crews' spaces.

Table J.—Classification of nuisances.

Nationality of vessel.	Number inspected during the year.	Defects of original construction.	Structural defects through wear and tear	Dirt, vermin and other conditions prejudicial to health.
British ...	1,811	10	97	279
Other nations	561	—	18	61
Totals ...	2,372	10	115	340

The arrangements for the reciprocal reporting of defects in crews' quarters, made with the surveyors' department of the Board of Trade, are now well established as a part of the normal routine.

There is a marked improvement in the accommodation provided which naturally is seen first in ships of recent construction. The accommodation of a number of old vessels has been altered where it has been found practicable to do so. This will no doubt extend to other ships as the times for survey and repair become due.

A number of ships have been found to be infested with vermin. Advice and assistance have been given in each case. The eradication of vermin especially bugs is particularly difficult as one of the chief sources of infestation is due to the crew carrying infested clothing from ship to ship and frequently from bug infested boarding houses ashore.

VII.—Food Inspection.

(1) *Public Health (Imported Food) Regulations, 1925.*

Public Health (Imported Food) Amendment Regulations, 1933.

Resort to legal proceedings was not necessary during the year.

Quantity of food imported and dealt with :—

<i>Fresh, frozen or canned meat, etc.</i>				
Frozen beef	...	...	...	24,984 qrs.
„ mutton and lamb	...	...	...	699,692 carcasses.
„ pork	...	...	...	20,451 „
„ pork sides	...	...	...	14,726 sides
„ pork legs	...	...	...	1,161 bags
„ sundries	...	...	...	14,214 packages.
Bacon and hams	...	...	...	1,040 tons
Canned meat	...	...	...	672 „
Canned fish	...	...	...	785 „
<i>Fresh, dried and canned fruit, etc.</i>				
Bananas	...	...	...	80,519 „
Green fruit	...	...	...	15,527 „
Dried fruit	...	...	...	5,719 „
Vegetables—raw	...	...	...	1,260 „
„ canned	...	...	...	1,863 „
Vegetables in brine	...	...	...	1,207 „
Canned fruit	...	...	...	8,206 „
<i>Other foods :</i>				
Butter, cheese and lard	...	...	...	25,764 „
Grain	...	...	...	946,901 „
Cereal products for human consumption	...	...	...	24,498 „
Feeding stuffs for animals	...	...	...	202,963 „

Imported animals dead or slaughtered :—

Animals landed dead	...	...	...	...	4
Slaughtered in lairs	...	...	...	...	nil

Unsound food destroyed or otherwise dealt with so as not to be used for human food.

<i>Fresh or frozen meat, etc.</i>					Tons.	cwts.	qrs.	lbs.
Beef	...	...	...	...	—	13	—	10
Mutton and lamb	...	...	...	...	4	19	2	18½
Pork	...	...	...	...	—	2	—	23
<i>Canned goods.</i>					Tins.			
Apples	...	...	...	...	7	—	1	10½
Apricots	...	...	...	...	425	—	6	20
Beef	...	...	...	...	64	—	2	19
Brawn	...	...	...	...	4	—	—	24
Blackcurrant pulp	...	...	...	...	1	—	—	11
Cherries	...	...	...	...	26	—	2	9
Corned beef	...	...	...	...	6	—	1	3
Cream	...	...	...	...	8	—	—	2
Fruit salad	...	...	...	...	15	—	1	1
Grape fruit	...	...	...	...	83	—	2	27
Ham	...	...	...	...	35	—	4	10
Ham Roll	...	...	...	...	16	—	2	6
Jellied veal	...	...	...	...	355	—	19	2
Lambs liver	...	...	...	...	5	—	1	22
Milk (condensed)	...	...	...	...	44	—	—	22
Milk (evaporated)	...	...	...	...	25	—	—	20
Peas	...	...	...	...	3	—	—	18
Pears	...	...	...	...	639	—	14	11
Peaches	...	...	...	...	385	—	6	22½
Pilchards	...	...	...	...	4	—	—	4
Pineapple	...	...	...	...	167	—	2	26
Pork and Beans	...	...	...	...	6	—	—	6
Salmon	...	...	...	...	24	—	—	24
Tomatoes	...	...	...	...	29	—	2	2
Tomato Puree	...	...	...	...	34	—	3	4½
Tongues	...	...	...	...	55	—	2	13
<i>Fruit and vegetables.</i>					Cases.			
Apricot pulp	...	...	...	...	1	—	4	—
Cabbage	...	...	...	...	30	—	7	—
Fruit salad (dried)	...	...	...	...	3	—	3	—
Grape fruit	...	...	...	...	120	6	—	—
Lettuce	...	...	...	...	23	—	3	22
Melons	...	...	...	...	16	—	16	—
Oranges	...	...	...	...	6,499	324	11	2
Potatoes	...	...	...	...	140	7	—	—
Prunes	...	...	...	...	1	—	—	25
Raisins	...	...	...	...	399	4	9	2
16								
<i>Other goods.</i>								
Barley	...	...	...	...	76	14	2	16
Cheese	...	...	...	...	—	1	1	14
Coconut (desiccated)	...	...	...	...	—	6	—	—
Cocoa Beans	...	...	...	...	—	9	2	—
Maize	...	...	...	...	13	16	3	20
Oats	...	...	...	...	1	18	3	10
Wheat	...	...	...	...	75	8	3	10
TOTAL					521	5	2	20

Public Health (Imported Milk) Regulations, 1926.

No milk (other than condensed, evaporated or dried) was imported during the year.

Public Health (Preservatives, etc., in Food) Regulations, 1925 to 1927.

Periodical sampling of various foods has been carried out under the provisions of the above regulations. There have been four infringements. These were dealt with in the manner laid down by the regulations.

Copper in Tomatoes.

Attention has been given during the year to the question of the amount of copper to be tolerated in imported canned tomatoes and importers were informed of the standard to be expected.

There is some divergence of opinion between certain foreign exporters and expert opinion in this country as to the amount of copper which can be said to be unavoidable in tinned tomatoes. In addition, certain importers have informed the department that in their opinion other tinned vegetables, e.g., tinned celery and asparagus invariably contain copper in similar amounts.

Numbers of samples have been taken during the latter half of the year of these goods, but with no definite confirmation of this statement.

It is however clear that with proper methods of preparation the copper content can be kept down to a very low figure and the department is proceeding on these lines.

Some examples are given of the variety of circumstances found in the work of food inspection at the port. These instances are as follows :—

(1). S/s. "Northumberland." This vessel arrived at Avonmouth with a consignment of frozen mutton and lamb from New Zealand. In the No. 4 tweendeck a consignment of barrels containing pickled pelts was stowed. Owing to rough weather on the passage some of these barrels burst and the pickling solution leaked into the refrigerated hold containing frozen meat. As arsenic is often used in the pickling of pelts, all contaminated carcasses were detained, and samples of the pickling solution were sent to the Bristol University for examination. The analysis showed that the pickle was free from arsenic, and was of pure salt. The damaged carcasses were found to be contaminated in much the same manner as by brine stain. Affected parts of the carcasses amounting to 2,504 lbs. of lamb and mutton were condemned in the usual manner.

(2). S/s. "Ruahine." This vessel brought, among other consignments, 250 cases of canned jellied veal from New Zealand. The point of interest in this instance is that 343 6 lb. tins were found to be blown and burst. The whole consignment was detained and every tin was examined. It is difficult to state with exactness the cause of these tins bursting in such a manner, but it is reasonable to think that inferior canning coupled with stowage in a warm part of the ship were the contributory factors.

(3). S/s. "Steel Maker." This vessel brought a consignment of general cargo from Pacific Coast ports, via London and Liverpool. At London it was discovered that a fractured soil pipe had been leaking into No. 2 hold. Notification of this was sent from London to Bristol. A strict watch was continually kept on all the cargo that was discharged from this hold at Avonmouth. 1,722 bags of barley were condemned, also 656, 28lb. cases of raisins were destroyed.

I have to thank Port Inspector Howick, Avonmouth, for these details and for the supervision of the arrangements in connection with the work entailed.

The number of samples found to contain preservative in excess of the regulations in previous years is according to the following table :—

1933	1934	1935	1936	1937	1938
6	—	10	5	—	4

(2) *Public Health (Cleansing of Shellfish) Act 1932.*

Public Health (Shellfish) Regulations 1934.

There are no shellfish beds or layings within the jurisdiction of the Bristol Port Health Authority. The supply of shell fish marketed in Bristol is obtained mainly from the following sources :

Cockles from St. Clair, South Wales, and King's Lynn, Norfolk.

Escallops ,, Brixham, South Devon.

Mussells ,, Appledore, North Devon ; and St. Clair, South Wales.

Oysters ,, Whitstable, Pyefleet, and Colemouth, via London, Portugese and American via Liverpool.

Winkles ,, Appledore, North Devon.

Whelks ,, King's Lynn, Norfolk.

(3) *Samples of food examined by bacteriologist and analyst.*

Article.	Examined for	Result.
Asparagus tips, canned	Metals	Copper 4 parts per million.
Cherries, canned ...	do.	Tin 1·06 grains per lb.
Cider	do.	Copper 0·012 grains per lb.
Cider	do.	Lead—2 parts per million.
Cider	do.	Copper—5 parts per million.
Carrots, canned ...	do.	Lead—5 parts per million.
Celery, canned ...	do.	Copper—1·5 parts per million.
Corned beef, canned	do.	Tin 0·3 grains per lb.
Corned beef, canned	do.	Copper—1·0 parts per million.
Flour	Contamination	Tin—1·0 grains per lb.
Flour	do.	Copper—1·0 parts per million.
Grapes	Presence of	Metals nil.
Lettuce	Arsenic.	Metals nil.
Lactose	Presence of en-	No evidence of contamination by
Malted Milk powder	teric and dy-	sea water.
Oranges, canned ...	sentery bacilli	do. do.
Raspberry pulp ...	Soundness	Arsenic not present.
Raspberry pulp ...	Soundness	Not present.
Syrup	Soundness	Genuine.
Sardine oil	Soundness	Genuine
Sardines	Metals	Metals nil.
do.	do.	No contamination indicated.
do.	do.	do.
do.	do.	Suitable for ingredient for cattle
do.	do.	food.
do.	do.	Genuine.
do.	do.	Lead—4 parts per million.
do.	do.	Lead—1·7 parts per million.
do.	do.	Lead—0·9 parts per million.
do.	do.	Lead—2·4 parts per million.
do.	do.	Lead—1·3 parts per million.
do.	do.	Lead—4·2 parts per million.
do.	do.	Lead—5 parts per million.
Salt codfish	Soundness	Unfit for food.
Spinach, canned ...	Metals	Lead—1 part per million.
Tomatoes, canned	Metals	Copper—2·5 parts per million.
do.	do.	Tin nil.
do.	do.	Tin—6·5 parts per million.
do.	do.	Copper—1·95 parts per million.
do.	do.	Tin—31·5 parts per million.
do.	do.	Copper—2·3 parts per million
do.	do.	'Blown' tin.
do.	do.	Tin—54 parts per million.
do.	do.	Copper—1·05 parts per million.
do.	do.	Tin—0·29 grains per lb.
do.	do.	Copper—4·8 parts per million.
do.	do.	Tin—0·31 parts per million.
do.	do.	Copper—1·4 parts per million.
do.	do.	Tin—32 parts per million.
do.	do.	Copper—2 parts per million of
do.	do.	dried total solids.
do.	do.	Tin—0·8 grains per lb.
do.	do.	Copper—45·7 parts per million
do.	do.	of dried total solids.
do.	do.	Tin—0·3 grains per lb.
do.	do.	Copper—117 parts per million
do.	do.	of dried total solids.
do.	do.	Tin—0·2 grains per lb.
do.	do.	Copper—60 parts per million of
do.	do.	dried total solids.

(3) *Samples of food examined by bacteriologist and analyst (contd.)*

Article.	Examined for	Result.
Tomatoes, canned	do.	Tin—0·13 grains per lb. Copper—31 parts per million of dried total solids.
do. 	do.	Tin—0·26 grains per lb. Copper—19 parts per million of dried total solids.
do. 	do.	Tin—0·24 grains per lb. Copper—50 parts per million of dried total solids.
do. 	do.	Lead—0·2 parts per million. Copper—37·1 parts per million of dried total solids.
do. 	do.	Copper—26·5 parts per million of dried total solids.
do. 	do.	Copper—34·6 parts per million of dried total solids.
Tomato puree ...	do.	Tin—0·66 grains per lb. Copper—3·7 parts per million.
do. 	do.	Tin—0·84 grains per lb. Copper—107 parts per million of dried total solids.
do. 	do.	Copper—28 parts per million of dried total solids.
do. 	do.	Copper—97·5 parts per million of dried total solids.

Sampling for preservatives.

The following samples were submitted to the public analyst during the year and examined by him for the presence of preservatives :

Apricots, dried... ... 2	Milk, skimmed, powder 2
Apples, evaporated ... 1	Muscateles ... 2
Asparagus tips, canned 1	Oranges, canned ... 2
Beef powder 2	Pulp, black currant ... 3
Beef stock 1	Pulp, apricot ... 2
Corned beef 2	Pulp, raspberry... ... 4
Cherries, canned ... 1	Pulp, strawberry ... 5
Cherries, in brine ... 1	Prawns 1
Carrots, canned ... 2	Prunes, dried 1
Candy 1	Raisins 2
Currants 1	Raspberries in SO ₂ ... 2
Cider 2	Strawberries in SO ₂ ... 2
Celery, canned 1	Sultanas 12
Corn flakes 1	Spaghetti, canned ... 1
Figs 2	Spinach, canned ... 2
Herring roe, canned ... 1	Shrimps, canned ... 1
Lunch tongue, canned 1	Tomato puree ... 5
Meat gelatine, canned... 1	Tomato, canned ... 18
Milk, chocolate malted... 1	Walnuts, shelled ... 1
powder 1	
Milk, malted, powder ... 2	Total ... 99
Milk, machine skimmed, condensed 3	
Milk, evaporated, full cream unsweetened ... 1	

MISCELLANY.*Parrots (Prohibition of Import) Regulations, 1930.*

No vessels arrived in 1938 with parrots or budgerigars on board.

Canal Boat Inspection.

No canal boats were in use in the Bristol district during 1938.

Medical inspection of aliens.

During the year 166 aliens landed at Bristol, mostly as first class passengers, in transit or visitors, from the West Indies, and medically presented no difficulties. Those referred for examination are examined on board while the ship is in the locks. Altogether, 124 were inspected by the medical inspector including 15 who were subjected to detailed examination.

Medical Inspection of Aliens.

Annual return by the medical inspector of aliens for year ended 31st December, 1938.

	Total	Number inspected by the medical inspector	Number subjected to detailed examination by the medical inspector	Certificates Issued					Transmigrants	
				Lunatic idiot or M.D.	Undesirable for medical reasons	Physically incapacitated	Suffering from acute infectious disease	Landing necessary for adequate medical examination	Vermineous	Trachoma favus, etc.
1. (a) Total number of Aliens (excluding Alien Seamen) landing at the Port	166	109	15	..	..	..	(d)	(e)	..	..
(b) Aliens refused permission to land by Immigration Officer	11	..	..	..	..	..	..	..	..	..
(c) Transmigrants .. ..	..	..	..	..	..	..	..	..	..	..
2. Total Aliens arriving at the Port	177	109	15	..	..	..	..	..	..	..

3. (a) Total number of vessels carrying alien passengers .. 95
 (b) Number of such vessels dealt with by the Medical Inspector .. 59

TABLE A.

Analysis of Aliens landing (see 1 (a)).		Total
Residents returning .. ..	..	6
In Transit .. ..	..	47
Visitors .. ..	..	85
Business .. ..	..	7
Diplomatic .. ..	..	1
Seamen .. ..	..	7
Contract Seamen .. ..	..	3
Ministry of Labour Permit (M.L.) :—		
(a) Males .. ..	..	..
(b) Females .. ..	..	3
(c) Children .. ..	..	..
Aliens coming to settle not holding M.L. permits :—		
(a) Males .. ..	..	2
(b) Females .. ..	..	5
(c) Children .. ..	..	..
Total .. ..	..	166

TABLE B.

Classification of Aliens referred to the Medical Inspector by the Immigration Officer for detailed examination—		Examined	No. of Certificates issued.
(i) holding Ministry of Labour permits .. ..	..	3	..
(ii) intending to remain in the country over 3 months .. ..	..	2	..
(iii) intending to make their home in this country .. ..	..	1	..
(iv) students coming for educational purposes .. ..	..	6	..
(v) in regard to whom there is any mention of health as a reason for their visit .. ..	..	..	..
(vi) who appear to the I.O. (a) not to be in robust health; (b) to be mentally or physically abnormal or sub-normal; (c) to be dirty in their person or (d) are selected for special reasons .. ..	..	..	..
(vii) seamen travelling as passengers .. ..	..	3	..
Total .. ..	..	15	..

